

# RECLAMATION

*Managing Water in the West*

## MP CONSTRUCTION OFFICE

Willows, California

Construction Progress Report – L29

February 2012



February 29, 2012 Balfour Beatty Infrastructure Workers installing an 84-inch butterfly valve onto unit #7 looking in the afterbay. Picture by Luke Smith

**"Doing It Right from the Start"**



U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region

CONSTRUCTION PROGRESS REPORT (L-29)  
MP CONSTRUCTION OFFICE  
MID-PACIFIC REGION  
February 2012

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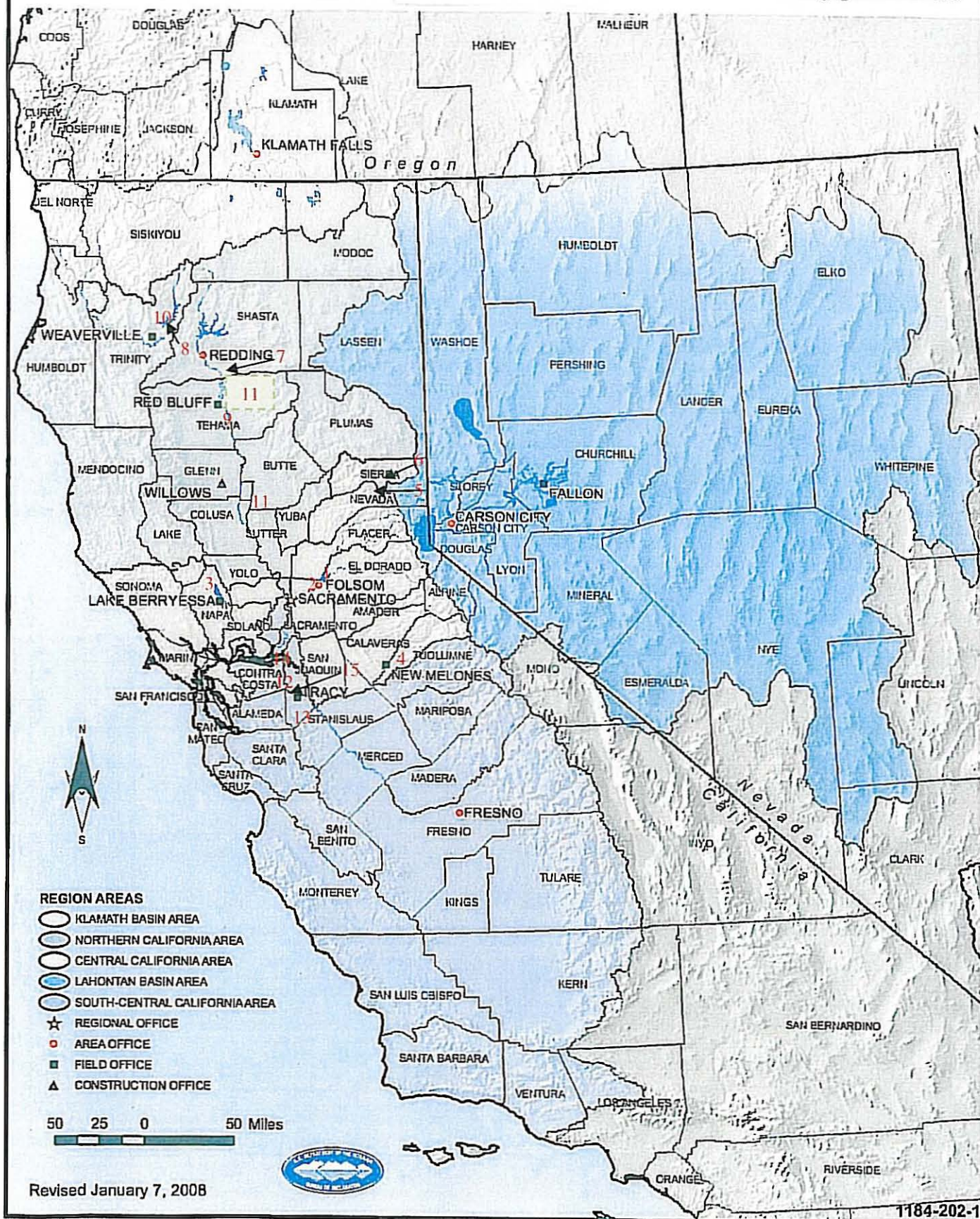


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# Mid-Pacific Region

**RECLAMATION**  
Managing Water in the West



## **STAFFING – MID PACIFIC CONSTRUCTION OFFICE**

The Mid Pacific Construction Office had 95 construction and administrative employees at the close of this month as follows:

Construction Engineer's Office	2
Preaward & Project Management Group	4
Administrative Management	12
Division of Field Engineering	40
Division of Office Engineering	17
Materials Lab Branch	12
Detail/Contract Employees	8



## **GLOSSARY OF ACRONYMS AND ABBREVIATIONS**

### **MEANING**

ADA	Americans with Disabilities Act
ARRA	American Recovery and Reinvestment Act
BMP	Best Management Practices
CCAO	Central California Area Office
CVP	Central Valley Project
LBAO	Lahontan Basin Area Office
MP	Mid-Pacific Regional Office
MPCO	Mid-Pacific Construction Office
NCAO	Northern California Area Office
REA	Request for Equitable Adjustment
SWPPP	Storm Water Pollution Prevention Program



CCAO

Contract No. R10PC20197

Specifications No. 20-C0768

Control Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and Powerplant–American River Division, Folsom Unit, Central Valley Project, California

Crane America Services, Inc., Livermore, CA

Work Performed:	February	0%
	Time Elapsed	84.6%
	Work Completed	76.0%
Contractor Earnings:	February	\$0
	Previous	\$1,092,267.02
	Total to Date	\$1,092,267.02

Area Office Project Management

Project Manager: Brian Zewe, CC-607A

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

MP-3800 continued working on Modification 6 this period.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 8

Work performed:

Remove Existing Crane Control Components:

Crane America removed the existing hand control levers, console, power and control wiring, and panel boxes from inside the cab to the bridge crane.

Remove Festoon, Bridge and Trolley Systems:

Crane America disconnected and removed the existing trolley festoon cable system along with all the conductors related to the bridge motors, trolley system, and hoist systems.

Prepare Motors, Brakes, House and Panels for Removal:

Crane America prepared the bridge crane components (control cabinets, existing trolley enclosures, trolley motors, hoist motors and bridge motors) for removal. Crane America removed the existing conductors, conduits and mounting system from the crane components.

Remove Trolley Equipment Enclosure:

AAA Services removed the trolley enclosures and the cranes motors from the bridge crane with a 40-ton mobile crane. Then Blue Water Environmental Services unbolted the enclosures and utilized the mobile crane to load the trolley enclosures onto trucks for removal offsite.

#### Remove Motors, Brakes, House and Panels:

Crane America and Blue Water Environmental Services loaded the bridge crane motors and control cabinets into a transport container with a mobile crane for removal offsite.

#### Asbestos/Coating Abatement by Blue Water:

Blue Water Environmental Services removed the lead based paint from the motor mounts (bridge, trolley and hoist), and from the crane control cabinet rack. Then Crane America removed the crane control cabinet rack. The cabinet rack will be cut and welded to allow for the installation of the new Variable Frequency Drive (VFD) cabinet.

Jeremy Malson, with Blue Water, was onsite to verify that the area from which lead based paint and asbestos were removed was cleared for Crane America to continue with the crane modernization work. No discrepancies were noted by Jeremy during this visit. Jeremy will submit his report confirming the area all clear.

#### Build VFD Cabinet Rack:

This month, the crew from Crane America finished modifying the existing crane control cabinet rack previously cut from the bridge crane. The rack is being modified to fit the new VFD cabinet. This month the cabinet rack was temporarily tack welded to the bridge crane; a welder from Crane America is scheduled to arrive onsite in March to permanently weld the VFD cabinet rack to the bridge crane.

#### Miscellaneous work:

Crane America removed and modified the existing gutter boxes (metal enclosures) along the face of the bridge crane (bank side). The crew is rerouting the existing location of the metal enclosure to accommodate the installation of the VFD cabinet. This metal enclosure will be used to route the new conductors entering and leaving the VFD cabinet.

The crew from Crane America also set the new resistors in their permanent location on the existing crane control cabinet rack of the bridge crane (bank side).

Contract No. R10PC20196

Specifications No. 20-C0769

Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant–American River Division, Folsom Unit, Central Valley Project, California

Crane America Services, Inc., Livermore, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	88.8%
Contractor Earnings:	February	\$0
	Previous	\$456,650.16
	Total to Date	\$456,650.16

Area Office Project Management

Project Manager: Brian Zewe, CC-607A

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period. The next invoice will be the final invoice.

The only contract work remaining is for the contractor to submit final data.

The substantial completion date was June 23, 2011.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 0

Work performed:

Site work was completed in June 2011.



Contract No. R10PC20R15

Specifications No. 20-C0649A

Fixed Wheel Gate Rehabilitation–Folsom Dam River Division–Central Valley Project,  
California

Abide International, Inc., Sonoma, CA

Work Performed:	February	0%
	Time Elapsed	52.8%
	Work Completed	24.7%
Contractor Earnings:	February	\$0
	Previous	\$2,018,053.97
	Total to Date	\$2,018,053.97

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

No invoices were received this period.

Modification No. 3 was fully executed on September 22, 2011. This modification extended the contract's legal completion date to August 2, 2013. The revised completion date was entered into the Contract Administration Database after the January L-29 Report was prepared. That is why the percent complete and the work completed reported above are less than they were in January.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Bill Linder, MPCO-312

Number of Contract Employees: 5

Work performed:

The contractor, Abide International, directed the work of the subcontractors on site. The subcontractor, American Crane, provided a crane operator for the Folsom Gantry crane. The subcontractor, C & W Diving, was responsible for demolition of the existing concrete beam, placement of the new concrete beam, and work associated with these activities.

This month, the subcontractor C&W Diving placed concrete in the beam forms of Units 1 and 3. While the subcontractor was waiting for the concrete in Units 1 and 3 to achieve 3000 psi of strength, the subcontractor started demolition operations on the existing concrete beam in Unit 2. After achieving 3000 psi strength on the concrete placed in Units 1 and 3, the subcontractor removed the forms in Unit 1 and 3. The subcontractor completed the removal of the beams in

Unit 2. Concrete forms and concrete form supports were placed in Unit 2. The subcontractor finished the chip back operation to ensure proper tie-in of the existing rebar in the structure. All the rebar was installed on each unit and approved for placing concrete into the new beams in Unit 2. The concrete was placed in Unit 2 on the 17<sup>th</sup> of February. The contractor started to strip the forms on the 29<sup>th</sup> of February after achieving a strength of 3,000 psi on the test cylinders.

Next month, the contractor will install the new trash rake grates in the new trash rake grate opening. The contractor will start to prepare for the leakage testing and will transport the stop logs to the top of the dam.

Contract No. R10PC20859

Specifications No. None

Folsom Dam and Powerplant Site Security System – Central Valley Project, California

Trofholtz Technologies, Inc., Rocklin, CA

Work Performed:	February	0%
	Time Elapsed	79.6%
	Work Completed	78.9%
Contractor Earnings:	February	\$0
	Previous	\$5,038,463.08
	Total to Date	\$5,038,463.08

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

No invoices were received this period.

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Arnold "Phil" Moseby

Number of Contract Employees: 6

Work performed:

Administration Building & Front Gate Areas

The Contractor worked on programming and testing the access control system. The contractor continues with the programming and troubleshooting the intrusion detection.

Security Control Center:

The contractor's technician continues working in the Security Control Center building finishing up terminating cabling. The technician also worked on installing floor jacks for the cables.

East Vehicle Barrier Civil, Electrical and Conduit Installation:

The Contractor's technician began working on the entry video/data system, troubleshooting the entry video/data configuration system.

Nutter worked at the East Vehicle Barrier and disconnected the power to the drop arm's lights.

Elevator Tower Electrical & Conduit Installation:

The contractor's technicians checked and tested the Camera. They are having problems with the ICX camera commands/data transport link to the Backup Security Control room. They are troubleshooting the ICX Camera video/data configuration system.

Power House:

The contractor's technicians are checking and testing the Camera. The technicians are having problems with the camera. They continued testing and verifying fiber paths and the data transport link to the Backup Control Center room. They are troubleshooting the Camera video/data configuration system.

Other:

The contractor continued programming, troubleshooting, and performing operational checks on the security system software.



Contract No. R10PC20R57

Specifications No. 20-C0760

Folsom Dam Civil Maintenance Building–American River Division–Folsom Unit, Central Valley Project, California

Building Solutions Inc., Reno, NV

Work Performed:	February	5.0%
	Time Elapsed	95.1%
	Work Completed	66.3%
Contractor Earnings:	February	\$330,325.13
	Previous	\$4,042,691.96
	Total to Date	\$4,373,017.09

Area Office Project Management

Project Manager: Ed Roza, CC-608

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

Invoice No. 16 was received this period and forwarded to Denver Finance for processing.

Modification No. 018 was executed on February 13, 2012 and extends the contract until March 29, 2012.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Michael E. Manlick, MPCO-313

Number of Contract Employees: 22

Work performed:

Item No. 595A – Install New Water Design Mod Nos. 4 & 12

SRC tested and certified the new 6-inch domestic and 3-inch irrigation backflow preventers.

Item No. 620 FRP Walks and Pads

BSI placed and finished the concrete heat pump compressor pads on the north and south side of Quad A.

Item No. 633 Irrigation System

Takahara installed irrigation valves, control wiring, and valve boxes in Planting Zones 2, 4, 6, 7, and 8 around the building.

Item No. 665A – Pour Quad C Slabs 3 Pours

Item No. 690A – Pour Concrete Quad D Slabs 2 Pours

Waterproofing Systems, Inc. removed the top surface of the two rain damaged slab sections in Quad C and Quad D. They also applied the Ardex SD-T Self-Drying, Self-Leveling Concrete Topping on the prepared concrete slabs surfaces in Quads C and D.

Item No. 705 – Apply Concrete Hardener

BSI placed one application of the approved Fluohard floor hardener to the Ardex SD-T top coat material used on the repaired slabs in Quads C and D.

Item No. 710 – Erect Metal Building Quad B

Lancaster Burns framed partition walls under the Mezzanine.

Item No. 720 – Electrical Conduit

Rex Moore installed rigid conduit throughout the building; installing plug, switch, and light boxes for electrical power, fire, telecommunication, and lighting circuits.

Item No. 725 – Erect Metal Building Quad A

Item No. 725A – Miscellaneous Metal Work at Entrance and Etc.

Lancaster Burns' crew completed installation of the pan decking over the "California" between the cold rolled steel section of Quad A and the steel structure. They also performed pick-up work and installed backing in the cold formed steel framing at Quad A.

Item No. 745 – Interior Concrete Walls

The painting subcontractor applied the final top coating of Ardex Overhead Vertical Panels to the faces of Cast In Place wall sections F and G in Quads C and D.

Item No. 750 – Free Standing Mezzanine

American Mezzanine Fabrication and Installation set columns, laid out B-Deck pan decking, and installed handrails for the Mezzanine.

Item No. 760 – Install Exterior Wall Panels

Solo Steel Erectors cut, fit, and installed prefabricated exterior wall panels onto the building's metal structure in Quads B and C. They also cut and fit wall panels over cast in place concrete walls within the car wash area, wood storage area, and sand blasting area within Quads C, B and D, respectively.

Item No. 785 – Install Exterior Doors and All Hollow Metal Frames

BSI installed the hollow metal door frames in the concrete wall openings. They grout-filled frames and secured them in place with the specified anchors.

Item No. 785B Install Aluminum Windows

BSI installed four window frames in the interior steel-framed wall of the Garage Office (Room 121).

Item No. 790 – Rough-in Duct Work in Quad A

Iron Mechanical installed HVAC ducting throughout the rooms in Quad A. They also installed copper refrigerant lines to heat five outside heat pumps.

Item No. 795 – Rough Sprinkler System

Foothill Fire Protection's crew installed main and lateral service lines within Quads B, C, and D.

Item No. 805 – Rough-in Plumbing

Iron Mechanical installed drain, vent and waste system lines throughout Quad A. They also installed copper water service lines, air chambers, valves, dripper and trap primers throughout Quad A. Iron Mechanical also installed trapeze hangers across Quad C and into Quad B.

Item No. 815 – Paint HM Frames & HM Doors & Other Metal

James Harris coated the structural steel members within Quads B, C, and D. They also coated exterior door frames, bollards, and fire hydrants.

Contract No. R10PC20114

Specifications No. 20-C0754

Folsom Dam–Safety of Dams Modification–MIAD Key-Block–American River Division,

Folsom Unit, Central Valley Project, California.

Shimmick Construction Co., Inc., Sacramento, CA

Work Performed:	February	5.4%
	Time Elapsed	30.7%
	Work Completed	52.6%

Contractor Earnings:	February	\$2,212,441.95
	Previous	\$24,934,526.15
	Total to Date	\$27,146,968.10

Area Office Project Management

Project Manager: Larry Hobbs, CC-106

Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Invoice 18 was received, approved, and forwarded to Denver, Colorado, this report period

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Howard Diedrich, MPCO-316, Sean Frische, MPCO-317

Number of Contract Employees: 42

Work performed:

Bay E and Bay F Work Activities:

Subcontractor, MDCl, continued drilling and installing secant piles on Bay E and Bay F. Sixty-one primary drill holes and sixty structural drill holes with W27x94 and 6-5/8" steel pipes were completed by end of this month. A total of 3582 cubic yards of concrete was placed in the secant pile walls.

Bays A, B, and D are 100% complete with secant pile walls.

Bay E is approximately 96% complete, and Bay F is approximately 23% complete with drilling for both primary and structural drill holes.

Bay C has not been started yet.

Bay D Work Activities:

Bay D Bracing Installation:

All bracing installation in this Bay was completed in January 2012. Each completed section is approximately 144.5' long by 41.25' wide.



Excavation – Bay D:

The contractor finished excavation from Level 4 into sub-grade (finished elevation varies from 317' to 310') There was no water as coming out of foundation during the excavation operation.

Lean Concrete – Bay D:

The contractor placed 4290 cubic yards of lean concrete from finished floor elevation to elevation 327.5' in Bay D this month.

Bay B Work Activities:

Bay B Bracing Installation:

The contractor finished installing the last two Levels of bracing at Bay B (Level 3 and Level 4) this month. Each completed section in Bay B is approximately 90.75' long by 41.25' wide.

Excavation – Bay B:

The contractor completed excavation from elevation 351' (Level 2) into sub-grade (finished elevation varies from 306' to 313') at Bay B this month. There was no water observed during the excavation operation.

Bay A Work Activities:

MDCI finished drilling the 6' dewatering wells at Bay A. 81 wells were completed this month. Hydrologic Systems, Inc. started the draw-down and recovery tests at Bay A.

Backfill Processing:

SCCI's subcontractor, Granite Construction, continued processing backfill material for the MIAD key-block. Approximately 30,000 cubic yards of material have been processed to date.

Removal and Control of Water:

Dewatering systems at Bay D and Bay B are pumping out on average of 210 gallons per minute (GPM).

Contract No. R10PC20R24

Specifications No. 20-C0751

Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates–American River

Division–Folsom Unit, Central Valley Project, California

Kiewit Infrastructure West Co., Folsom, CA

Work Performed:	February	0%
	Time Elapsed	62.2%
	Work Completed	97.8%
Contractor Earnings:	February	\$0
	Previous	\$16,847,786.58
	Total to Date	\$16,847,786.58

Area Office Project Management

Project Manager: Larry Hobbs, CC-106

Office Engineering

Contract Administrator: Erik Danger, MPCO-218

No invoices were received this period.

The substantially complete date was December 12, 2011.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Howard Diedrich, MPCO-316

Number of Contract Employees: 0

Work performed:

No site work was performed.

Contract No. R10PC20767

Specifications No. 20-C0703

Folsom Power Plant U1, U2, and U3 Replacement Runners–American River Division–Folsom Unit–Central Valley Project, California

Voith Siemens Hydro Power Generation, Inc., York, PA

Work Performed:	February	0%
	Time Elapsed	76.6%
	Work Completed	72.8%
Contractor Earnings:	February	\$0
	Previous	\$5,235,564.34
	Total to Date	\$5,235,564.34

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this report period.

Field Engineering

Construction Manager: N/A supply contract

Construction Representative: N/A supply contract

Number of Contract Employees: N/A supply contract

Work performed: N/A supply contract

Contract No. R10PC20019

Specifications No. 20-C0689

Folsom Power plant, U1, U2, and U3 Rewind and Excitation System Replacement– American River Division–Folsom Unit–Central Valley Project, California

Andritz Hydro Corp, Charlotte, NC

Work Performed:	February	0%
	Time Elapsed	44.3%
	Work Completed	34.4%

Contractor Earnings:	February	\$0
	Previous	\$6,271,961.77
	Total to Date	\$6,271,961.77

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

MPCO reviewed proposals for Modification Nos. 6 and 7 which will definitize Modification Nos. 1 and 2. The review was not completed this period.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Sergio Vivar, MPCO-311, Sean Frische, MPCO-317

Number of Contract Employees: 0

Work performed:

No work was performed. The contractor demobilized on October 28, 2011, and per the schedule, will remobilize in October 2012.

Contract No. R10PC20R49

Specifications No. 20-C0733

Lake Berryessa Americans with Disabilities Act (ADA) Accessibility Improvements-ARRA

Project No. 49.000-Lake Berryessa Recreational Area, Solano Project, California CSRW (DBA)

CSRW, Inc. (DBA) Allied Construction Services, Livermore, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	96.3%

Contractor Earnings:	February	\$0
	Previous	\$1,009,249.48
	Total to Date	\$1,009,249.48

Area Office Project Management

Project Manager: Nicole Johnson, CC-605c

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

A final modification will be negotiated to incorporate differing quantities; some of which are over 15 percent.

Field Engineering

Construction Manager: Reynaldo Garcia, MPCO-310

Construction Representative: John Lakovich, MPCO-344

Number of Contract Employees: 0

Work performed: Site work was completed in September 2011.

Contract No. R10PC20R37

Specifications No. 20-C0738

New Melones ADA Accessibility-ARRA Project No. 50.000-New Melones Recreation Area,  
East Side Division-Central Valley Project, California

J.I. Garcia Construction, Inc., Fresno, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	96.5%
Contractor Earnings:	February	\$0
	Previous	\$1,298,989.89
	Total to Date	\$1,333,872.80

Area Office Project Management

Project Manager: Nicole Johnson, CC-605c

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

Invoice 8 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done in this pay period, but for work done through January 31, 2012.

Substantially complete date was October 13, 2011.

The contractor plans to provide as-built drawings and complete punch list items in March 2012. A final modification will be required to incorporate the final quantities into the contract.

Field Engineering

Construction Manager: Reynaldo Garcia, MPCO-310

Construction Representative: John Lakovich, MPCO-344

Number of Contract Employees: 2

Work performed:

The contractor worked one day this period, February 29, and patched areas of drywall damaged by the previous installation of the new lighting and fire alarm systems. The contractor will paint the areas that were patched March 1. The contractor installed a 4-foot ADA bench and an 8-foot ADA bench.

The only remaining work is to resolve punch list items.





8-Foot ADA bench installed behind the visitor's Center  
New Melones ADA Accessibility

Contract No. R10PC20128

Specifications No. 20-C0706

New Melones Power Plant Excitation System Replacement–East Side Division–New Melones Unit–Central Valley Project, California

Koontz Electric Company, Inc., Morrilton, AR

Work Performed:	February	31.9%
	Time Elapsed	93.2%
	Work Completed	68.8%

Contractor Earnings:	February	\$767,480.00
	Previous	\$889,133.00
	Total to Date	\$1,656,613.00

Area Office Project Management

Project Manager: Terry Brown, CC-606a

Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

Invoice No. 6 was received this period and forwarded to Denver Finance for processing.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Dennis Schuenemann, MPCO-338

Number of Contract Employees: 0

Work performed: Site work has not begun.

Contract No. R09PC20171

Specifications No. 20-C0720

Nimbus Powerplant HVAC System Modification–American River Division–Folsom Unit,  
Central Valley Project, California

Perryman Mechanical, Inc., West Sacramento, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	79.9%
Contractor Earnings:	February	\$0
	Previous	\$428,963.09
	Total to Date	\$428,963.09

Area Office Project Management

Brian Zewe, CC-607A

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Although the substantially complete date is December 12, 2010, multiple submittals remain outstanding. Punch list items remain at the site. The contractor has not been timely in completing these items.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 0

Work performed: No work was performed. As stated above, there are punch list items to complete.

Contract No. R09PC20R03

Specifications No. 20-C0677

Transformer K1A and K2A Replacements–Folsom Power Plant–American River Division–  
Central Valley Project, California

Koontz Electric Company Inc., Morrilton, AR

Work Performed:	February	0%
	Time Elapsed	91.3%
	Work Completed	98.5%

Contractor Earnings:	February	\$0
	Previous	\$4,560,567.66
	Total to Date	\$4,560,567.66

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

Although the final invoice was received, it was returned as the contractor had not fulfilled all contract obligations because it had not provided the SF-1413 forms.

Field Engineering

Construction Manager: Sean Frische, MPCO-317

Construction Representative: Sergio Vivar, MPCO-311

Number of Contract Employees: 0

Work performed:

The only site work performed was warranty work.

# LBAO

Contract No. R10PC20211

Specifications No. 20-C0767

Prosser Creek Dam Road Improvements–Washoe Project–Stampede Division–California

Spectrum Services Group, Inc., Sacramento, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	96.1%
Contractor Earnings:	February	\$0
	Previous	\$385,427.30
	Total to Date	\$385,427.30

Area Office Project Management

Project Manager: Locke Hahne, LO-400

Office Engineering

Contract Administrator: John Zimmerman, MPCO-230

No invoices were received this period.

The only work the contractor needs to complete is achieving approval of as-built drawings, which is expected in March 2012.

Field Engineering

Construction Manager: Reynaldo Garcia, MPCO-310

Construction Representative: Mike Rondoni, MPCO-319

Number of Contract Employees: 0

Work performed: All contract work was completed in September.



Contract No. R11PC20158

Specifications No. 20-C0777

Stampede Powerplant and Switchyard Recoatings–Stampede Dam–Stampede Division–  
California

Farr Construction Corporation, Sparks, NV

Work Performed:	February	0%
	Time Elapsed	53.4%
	Work Completed	0%
Contractor Earnings:	February	\$0
	Previous	\$0
	Total to Date	\$0

Area Office Project Management

Project Manager: Locke Hahne, LO-400

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

Field Engineering

Construction Manager: Reynaldo Garcia, MPCO-310

Construction Representative: Mike Rondoni, MPCO-319

Number of Contract Employees: 0

Work performed: No work was performed because it requires warmer weather (summer time).

NCAO

Contract No. R10PC20025

Specifications No. None

Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring–Shasta  
Division–Central Valley Project, California

Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	February	1.1%
	Time Elapsed	28.4%
	Work Completed	85.6%
Contractor Earnings:	February	\$7,902.50
	Previous	\$598,240.05
	Total to Date	\$606,142.55

Area Office Project Management

Project Manager: Hank Herrington, NC-210

Invoice No. 13 was received, approved, and forwarded to Denver, Colorado, this report period.

Office Engineering

Contract Administrator: Jacquelyn Olds, MPCO-202

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

The contractor's current activity consists of maintaining vegetation planted in 2010.

Contract No. R11PC20087

Specifications No. None

Coleman National Fish Hatchery–Water Intake No. 3 Repairs to Fish Screen–Battle Creek

Division–Central Valley Project, California

Intralox, LLC, Harahan, LA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	0%
Contractor Earnings:	February	\$0
	Previous	\$0
	Total to Date	\$0

Area Office Project Management

Project Manager: Kevin Jacobs, MPCO-214

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

All work was completed and considered substantially complete on July 13, 2011, 6 days before the due date. One punch list item, to fix 3 broken bolts, remains. The contractor has not yet invoiced.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Fernando Pavone, MPCO-333

Number of Contract Employees: 0

Work performed: Although all work has been completed, the punch listed item described above remains to be completed.

Contract No. R11PC20124

Specifications No. 20-C0780

Coleman National Fish Hatchery Barrier Weir Site Modifications–Shasta Division–Central Valley Project, California

Contractor Services Group, Inc., West Sacramento, CA

Work Performed:	February	0%
	Time Elapsed	39.0
	Work Completed	0%
Contractor Earnings:	February	\$0
	Previous	\$0
	Total to Date	\$0

Area Office Project Manager

Jim Goodwin, MP-200

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Notice to proceed was issued on October 13, 2011.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Fernando Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

Site work has not begun, but will begin in June 2012.

Contract No. R10PC20746

Specifications No. 20-C0700

Coleman National Fish Hatchery Water Intakes Rehabilitation–Shasta Division–Central Valley Project, California

Shimmick Construction, Inc., Sacramento, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	97.8%

Contractor Earnings:	February	\$0
	Previous	\$7,915,099.25
	Total to Date	\$7,915,099.25

Area Office Project Management

Project Manager: Hank Herrington, NC-210

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

No onsite work was done this period.



Contract No. R09PC20126

Specifications No. 20-C0727

J.F. Carr Penstock Relining–NCAO, Shasta Power Plant–Sacramento River Division– Central Valley Project, California

Extreme Coatings, Inc., Pasco, WA

Work Performed	February	0%
	Time Elapsed	93.0%
	Work Completed	94.2%
Contractor Earnings	February	\$0
	Previous	\$2,871,774.61
	Total to Date	\$2,871,774.61

Area Office Project Management

Program Manager: Israel Patterson

Office Engineering

Contract Administrator: Kevin Jacobs

No invoices were received this period.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Mike House, MPCO-303

Number of Contract Employees: 0

Work performed:

No site work was performed in February.

Contract No. R10PC20744

Specifications No. 20-C0712

J.F. Carr Power Plant, Generator G1 and G2 Rewinds–NCAO–Shasta Power Plant–Sacramento  
River Division–Central Valley Project California

National Electric Coil, Inc., Columbus, OH

Work Performed	February	0%
	Time Elapsed	100%
	Work Completed	80.5%
Contractor Earnings	February	\$0
	Previous	\$12,038,344.04
	Total to Date	\$12,038,344.04

Area Office Project Management

Program Manager: John Dotter, NC-261

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 9 (day shift), 6 (night shift)

Worked Performed:

The contractor completed the following:

- Installation of the top half bars and associated packing (ripple springs)
- Installation of the radial wedging system and associated packing (runners, fillers, ripple springs, wedges)
- Brazing of the common bar series clips and the A, B, C, and D jumpers
- Installation of the series clip and jumper clip caps
- Installation of the turn blocking and lashing of adjacent top bars to one another, and figure eight ties on the bottom wedges
- Performed the required (Required Submittal No. 16225) resistance and a hi-pot testing of the top and bottom bars in series. There were no issues to report

Service Metrology took measurements of the stator core final dimensions. There were no issues to report.

Rotor/Poles:

The contractor completed the following:

- Installation of the 32 refurbished poles back onto the rotor along with their associated mounting hardware (keyway wedges, v-blocks).
- Brazing of the jumper leads between the 32 individual poles.

Subcontractor, Service Metrology, took required measurements (Modification No. 006) to determine perpendicularity, roundness, and concentricity of the rotor with the refurbished poles re-installed. There was no issue to report.

Contract No. R10PC20R33

Specifications No. 20-C0752

Red Bluff Pumping Plant and Fish Screen–Sacramento River Division–Sacramento Canals Unit–  
Central Valley Project, California

Balfour Beatty Infrastructure, Inc., Red Bluff, CA

Work Performed:	February	3.3%
	Time Elapsed	76.3%
	Work Completed	80.7%

Contractor Earnings:	February	\$2,493,296.54
	Previous	\$58,644,312.10
	Total to Date	\$61,137,608.64

Area Office Project Management

Project Manager: Bill Vanderwaal

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

Invoice No. 20 was received, approved, and forwarded to Denver, Colorado, this report period.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Dave Derk, MPCO-334 and Luke Smith, MPCO-309

Number of Contract Employees: 103

Work Performed:

Sheet pile caps and hand rail were started on the wall between the pumping plant and downstream end of the fish screen. Pile driver crew started installing the remaining sheet pile tie back walls around the pumping plant, in the forebay, and for the canal transition areas, completing all of the piling installation work and continue the tie back work.

Crews completed grouting and concreting the fish screen guides and sill plates, installing the Fyke Net guides, and access ladders. Crews continued installing the tuning baffles, sediment jetting piping, fish screen cleaner system, cat walk, and handrail. Workers started cleaning the sediment jetting piping and continued concrete repairs, and grouting the sediment jetting pipe support stands.

Workers continued concrete repairs in the sump areas and started installing the trash rack bracing on the upstream face of the pumping plant sump walls. All sole plates were grouted, and anchor bolts for the pumps torqued. All 11 shafts and enclosing tubes along with packing boxes were installed in the pumps under the supervision of an installation engineer from the pump manufacture. Discharge pipes, butterfly valves, and flap gates installations were started this month.

The contractor completed concrete placements for the transformer pads and circuit breaker pads. They still have the generator pad to place. Crews continued installing the concrete cable trench and started the oil containment system around the transformer pads.

Crews continued installing the trash racks in the siphon inlet.

Crews placed the 2-feet of lean concrete in the canal and canal transition areas, and completed the structural concrete in the canal area. They started the formwork for the structural concrete in the canal transition area.

Meyers Earthwork: Meyers currently has 10 employees onsite.

The crew continued the excavation while the weather allowed.

Workers completed the excavation for the canal and canal transition area.

Harris Salinas Rebar: Harris Salinas currently has 4 employees onsite. They installed the reinforcing steel for the switchyard structures and canal structural concrete.

Central Sierra Electric: Central Sierra Electric has 12 employees on site. One electrician and equipment operator continued the duct bank installation between the pumping plant and siphon, and started the conduit duct bank run from the boat dock to the pumping plant.

The electricians installed the level transmitter pull boxes and conduits, and pulled the conductors between the pumping plant equipment and the fish screen.

The electricians installed the Fish Screen Cleaner control panel, Fish Screen Motor Control Center (MCC), Pumping Plant MCC, Pumping Plant Control Panel, and panel board DCA. They continued installing conduit runs inside the Pumping Plant Control Building, and started installing the Variable Frequency Drives for the pump motors and cathodic protection conduits.

Workers continued installing the grounding grid in the switchyard along with making the termination at the equipment.

3 painters were on site completing coating the interior of the control building surfaces and started coating the trash rack metal plates and clips, and touch-up coating on all metal work on the pumping plant and fish screen.

Harreld's Hi Voltage: A 3 man high voltage crew installed the bus support structures, 2-inch diameter aluminum bussing, disconnect switches, Combined Current Voltage Transformers, and the high voltage transformers were installed and assembled with the assistance of a factory representative.

Sierra Glass: 1 worker installed all the glass in the windows of the pumping plant control building

Another Door Company: 1 technician installed thresholds beneath the steel doors in the pumping plant.

International Lining Technologies: 2 technicians welded the seams together on the geomembrane in the oil containment areas around the 2 high voltage transformers.

Corrpro: 2 technicians started installing the cathodic protection systems in the pumping plant.





February 29, 2012 Balfour Beatty Infrastructure Workers installing an 84-inch butterfly valve onto Unit No. 7 looking in the after-bay. Picture by Luke Smith

Contract No. R10PC20R09

Specifications No. 20-C0740

Red Bluff Pumping Plant and Fish Screen, Landfill Excavation and Canal, Siphon and Access  
Bridge-Sacramento River Division-Sacramento Canals Unit-Central Valley Project, California  
West Bay Builders, Red Bluff, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	95.7%

Contractor Earnings:	February	\$0
	Previous	\$21,850,031.14
	Total to Date	\$22,275,999.59

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

Invoice 23 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done in this pay period, but for work done through January 31, 2012.

The substantially complete date was December 2, 2011.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work Performed: No work was performed as site work was completed in January 2012.

Contract No. R10PC20R11

Specifications No. 20-C0730

Red Bluff Pumping Plant and Fish Screen, Pumps and Motors–Sacramento River Division–  
Sacramento Canals Unit–Central Valley Project, California

MWI Corporation, Deerfield Beach, FL

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	98.4%

Contractor Earnings:	February	\$0
	Previous	\$6,851,884.00
	Total to Date	\$6,851,884.00

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

This is a supply contract.

Liquidated damages are being assessed starting July 31, 2011.

No invoices were received this period.

Field Engineering

Construction Manager: Randy Wyatt

Construction Representative: None

Number of Contract Employees: Not applicable as this is a supply contract.

Work Performed: All pumps and motors have been delivered to the site. Installation of pumps has not yet begun.

Contract No. R10PC20102

Specifications No. 20-C0755

Spring Creek Powerplant Generators G1 and G2 Rewinds–NCAO–Central Valley Project,  
California

Andritz Hydro Corp., Charlotte, NC

Work Performed:	February	0%
	Time Elapsed	86.8%
	Work Completed	63.5%
Contractor Earnings:	February	\$0
	Previous	\$3,801,117.15
	Total to Date	\$3,801,117.15

Area Office Project Management

Project Manager: Joe Ascoli, NC-650

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

Construction Representative: Frank Medberry, MPCO-327

No invoices were received this period.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Sergio Vivar, MPCO-311, Sean Frische, MPCO-317

Number of Contract Employees: 8

Work Performed: Andritz performed an AC Hi-Pot test, completing the contractual testing prior to re-assembly of the unit.

As requested by NCAO, Andritz performed a measurement of the stator core in relation to the hydraulic center after installation of the lower guide bearing. NCAO confirmed that measurements were within air gap Facilities Industry Standards Techniques (FIST) tolerances.

Contract No. R10PC20185

Specifications No. 20-C0762

Whiskeytown Lake Temperature Control Curtain–Trinity River Division–Central Valley Project,  
California

Erick Ammon, Inc., Anderson, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	99.0%
Contractor Earnings:	February	\$0
	Previous	\$2,992,214.00
	Total to Date	\$2,992,214.00

Area Office Project Management

Project Manager: Bob Gee, NC-230

Office Engineering

Contract Administrator: John Zimmerman, MPCO-230

No invoices were received this period.

The substantially complete date was June 17, 2011.

During this period, factors related to liquidated damages were being evaluated to determine if liquidated damages should be applied. Once a determination is made, the final modification incorporating extra dive days will be executed.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Steve Holmes, MPCO-320

Number of Contract Employees: 0

Work performed: All site work was completed in September.

Contract No. R11PC20196

Specifications No. 20-C0771

Wildcat Canal Access Road Improvements–Battle Creek Salmon and Steelhead Restoration  
Project, California

Contractor Services Group, Inc., West Sacramento, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	98.6%
Contractor Earnings:	February	0
	Previous	\$228,238.21
	Total to Date	\$228,238.21

Area Office Project Management

Project Manager: Mary Marshall, MP-203

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period. Modification No. 1 was executed on January 30, 2012.

The substantially complete date was February 22, 2012.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Dennis Edwards, MPCO-339

Number of Contract Employees: 0

Work performed: The contractor corrected all punch list items this period.

SCCAO



Purchase Order No. R11PC20155

Specifications No.20-C0776a

Delta Cross Channel Gate Control and Lighting Improvements–Central Valley Project,  
California

Sierra Range Construction, Visalia, CA

Work Performed:	February	0%
	Time Elapsed	63.4%
	Work Completed	0%
Contractor Earnings:	February	\$0
	Previous	\$2534.00
	Total to Date	\$2534.00

Area Office Project Management

Project Manager: Warren Feng, TO-438

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 4

Work performed:

Gate Control and Lighting System:

The contractor removed the control panels and conduit from the structure. The contractor also worked on the following:

- Installation of luminary poles on the north and south sides of the structure and sign lighting on the east and west sides of the structure.
- Installation of rigid conduit on the structure and from the structure to the (1) luminary poles, (2) sign lighting, and (3) gate drive motors.

Contract No. R10PC80R23

Specifications No. 20-C0761

Delta-Mendota Canal-California Aqueduct Intertie-Central Valley Project-California

Shimmick Construction Company, Inc., Tracy, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	99.3%
Contractor Earnings:	February	\$466,317.99
	Previous	\$14,442,627.88
	Total to Date	\$14,908,945.87

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

Invoice 16 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done in this pay period, but for work done through January 25, 2012. Because the Contract Administration Database did not contain information for February, Work Performed in February was not updated.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Phil Vanderwal, MPCO-322

Number of Contract Employees: 17

Work performed:

- Pumping plant and switchyard electrical installations and wire testing
- Work on the steel manifold pipe to bring it into tolerance for roundness and alignment at the Victaulic couplings
- Installation and subsequent removal of the heating, ventilation, and air conditioning louvers after they were damaged
- Installation and adjustment of fans
- Discovery of a leak in the north pipeline and subsequent draining of the line to allow investigation
- Continued work by divers on the liner replacement
- Service air and water installations
- Generator fuel line installation
- Preliminary work on punch list items was ongoing including concrete repairs, touchup painting, completion of the chain link fence, and road repairs.

Contract No. R10PC20R32

Specifications No. 20-C0749

Fish Screen Structure Phase 3, Contra Costa Canal–Central Valley Project, California

Flatiron West, Inc., Oakley, CA

Work Performed:	February	1.6%
	Time Elapsed	100%
	Work Completed	99.7%

Contractor Earnings:	February	\$228,565.85
	Previous	\$13,755,052.81
	Total to Date	\$13,983,618.66

Area Office Project Management

Project Manager: John Dealy, TO-406

Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

An invoice was received this period, but it was returned because the contractor has not submitted an acceptable updated schedule.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: John Lakovich

Number of Contract Employees: 20

Work performed:

Mod 15 – 70' Radio Antenna Tower

This month the contractor installed the 70' Super Titan tower supplied by Trylon. The contractor saw-cut the existing asphalt, and excavated the foundation. The contractor placed the rebar and concrete in the foundation and after waiting for the concrete to make strength, the contractor placed the antenna on the foundation. The contractor installed bollards to protect the antenna.

The subcontractor, Tesco, installed the communication dish on the tower and established proper bandwidth on February 24, 2012. On February 27, 2012, communication was established with the Contra Costa Water District's security control center and the 14-day test period will conclude next month on March 12, 2012. The sub contractor, Central Sierra Electric, installed the rigid conduit for the radio wire to the control room.

Misc.: While the subcontractor was on site he also completed a punch list item. The subcontractor installed longer flex conduit at the motor that connects to the adjusting belt drum. This longer flex conduit was installed to allow full adjustment of the drum.

There continues to be an issue of accelerated damage to the installed wire ropes on the trash rakes. The subcontractor, Transco, replaced the wire rope on Trash Rake No. 2 on February 3, 2012, due to excessive fraying. On February 27, 2012, Transco replaced the wire ropes on Trash Rake No. 2 and No. 4 with galvanized 7/16" and No. 3 with 7/16" stainless steel wire rope. These ropes were replaced due to excessive fraying. On February 9, 2012, Transco replaced a sensor on Trash Rake No. 3 that had stopped working. On February 21, 2012 all trash rakes had stopped working. Every day after that, and for the remainder of the month until Transco came on site on February 27, 2012, at least 3 trash rakes were not operating when the contractor arrived on site in the morning. The contractor was able to get the trash rakes running again by resetting them, and then they would stop running over night.

Contract No. R11PC20185

Specifications No. 20-C0778

Tracy 13.8kV Switchgear/Breaker Replacement–Tracy Pumping Plant and Substation–Central Valley Project, California

Contra Costa Electric Corp., Martinez, CA

Work Performed:	February	0%
	Time Elapsed	11.3%
	Work Completed	7.4%
Contractor Earnings:	February	\$0
	Previous	\$85,271.00
	Total to Date	\$769,621.15

Area Office Project Management

Project Manager: Warren Feng, TO-438

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

This is a design build contract.

Invoice No. 2 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done in this pay period, but for work done through January 31, 2012. The invoice was for reimbursement for payment to subcontractors for design work.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Not yet determined

Number of Contract Employees: 0

Work performed: The contractor was scheduled to begin onsite work in February 2012, but this has been changed to February 2013.

# Regional

Contract No. R10PC20R80

Specifications No. 20-C0759

Drought Relief–Construction of New Wells–ARRA Project No. 28.002–California

Layne Christensen Company, Fontana, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	70.3%

Contractor Earnings:	February	\$0
	Previous	\$11,393,882.95
	Total to Date	\$11,393,882.95

Area Office Project Management

Project Manager: Kevin Clancy, MP-410

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period, therefore the work performed and contractor earnings shown above are zero.

Field Engineering

Construction Manager: John E. Nelson, MPCO-328

Construction Representative: Richard T. Nead, MPCO-342

Number of Contract Employees: 2 to 10

Work performed:

Pump and motor installation, test pumping, reduction of well depth, and well abandonment were performed in the West Stanislaus Irrigation District, the Del Puerto Water District, the Tranquility Irrigations District, and the James Irrigation District.

Future work:

Startups will continue in the Del Puerto Water District and the West Stanislaus Irrigation District contingent on the variables involved. Spring time completion of the Grassland Water District wells.

Purchase Order No. R10PX20R45

Specifications No. 20-C0750

Drought Relief, Well Enhancements-ARRA Project No. 28.000-Central Valley Project  
California

Hydro Resources-West, Inc., Winnemucca, NV

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	43.9%

Contractor Earnings:	February	\$0
	Previous	\$555,369.60
	Total to Date	\$555,369.60

Area Office Project Management

Project Manager: Kevin Clancy, MP-410

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering

Construction Manager: John Nelson, MPCO-328

Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 0

Work performed:

No work was performed. Site work will begin in March 2012.



Purchase Order No. R10PX20R54

Specifications No. 20-C0750

Drought Relief, Well Enhancements-ARRA Project No. 28.000-Central Valley Project Don  
Pedro Pump, LLC-Turlock, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	86.5%
Contractor Earnings:	February	\$0
	Previous	\$1,084,249.60
	Total to Date	\$1,084,249.60

Area Office Project Management

Project Manager: Kevin Clancy, MP-410

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering

Construction Manager: John Nelson, MPCO-328

Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 0.

Work performed:

No work was performed. Site work will begin in March 2012.

Contract No. R10PC20R48

Specifications No. 20-C0741

Gray Lodge Wildlife Area and Pixley National Wildlife Refuge Wetlands–Groundwater Well  
Construction–ARRA Project No. 28.113–Central Valley Project–East Side Division, California  
Sansone Company, Inc., San Luis Obispo, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	85.9%
Contractor Earnings:	February	\$0
	Previous	\$4,215,884.62
	Total to Date	\$4,215,884.62

Area Office Project Management

Project Manager: Sonya Nechanicky, MP-410

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

We are dealing with issues with the contractor regarding coatings, Pacific Gas and Electric, and equipment.

Field Engineering

Construction Manager: John E. Nelson, MPCO-328

Construction Representative: Richard T. Nead, MPCO-342

Number of Contract Employees: 0

Work performed:

No work was performed this month. Installation of pumps and motors at Gray Lodge will begin March 5, 2012. Some final details are still pending regarding the Pixley wells.

Contract No. R10PC20R42

Specifications No. 20-C0746

Hydropower Facility Modifications-Stage 1-ARRA Project No. 14.00 Battle Creek Salmon and Steelhead Restoration Project, California

RTA Construction/Ray Toney JV, Redding, CA

Work Performed:	February	0%
	Time Elapsed	57.4%
	Work Completed	47.0%
Contractor Earnings:	February	\$0
	Previous	\$3,431,588.11
	Total to Date	\$3,726,831.21

Project Management

Project Manager: Mary Marshall, MP-203

Office Engineering

Contract Administrator: Kent Perkes, MPCO-225

Invoice 12 was received, approved, and forwarded to Denver, Colorado, this report period. It was not for work done in this pay period, but for work done through January 27, 2012.

Modification No. 9, which increased the contract price by \$39,071.90, was executed this period.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 25

Work Performed:

Penstock Bypass Chute: Subcontractor, Camblin Steel, finished installing reinforced steel for bypass chute Slabs 24 and 25 and Walls 22 and 23.

Subcontractor, Muse Concrete, placed concrete for Bypass Chute Walls 10, 11 and 22 and Slabs 12, 13 and 24.

RTA Construction, began installation of the solid drain pipe that passes through the wing walls for the bypass chute.

Storm Water Pollution Prevention Program (SWPPP) Activity: RTA Construction continued maintaining SWPPP Best Management Practices (BMP) and McEntire Landscaping applied straw and tackifier in use areas 2, 4 and 5.

New Wasteway Structure: RTA Construction finished installation of the 66-inch slide gate, installed the gate stem and pedestal, and started installing trash rack grates and hand rail.

Penstock Bypass Pipeline: RTA Construction began installation of forms for the 66-inch bypass pipeline manhole at station 28+33.00.



Two RTA Construction employees installing forms for the 66-inch bypass pipeline manhole at station 28+33.00

Hydropower Facility Modifications-Stage 1–Battle Creek Salmon and Steelhead

Contract No. R10PC20005

Specifications No. 20-C0717

North Fork Screens and Ladders–Battle Creek Salmon and Steelhead Restoration Project,  
California

Syblon Reid Contractors, Folsom, CA

Work Performed:	February	0%
	Time Elapsed	85.4%
	Work Completed	97.1%
Contractor Earnings:	February	\$0
	Previous	\$11,912,247.39
	Total to Date	\$11,912,247.39

Area Office Project Management

Project Manager: Mary Marshall, MP-203

Office Engineering

Contract Administrator: Kent Perkes, MPCO-225

No invoices were received this period.

Modification No. 18, increasing the contract price by \$57,481.27, bringing the total to \$12,331,299.93.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 0

Work performed: The contractor completed all contract site work in December 2011, and demobilized its field office.

Contract No. R10PC20R39

Specifications No. 20-C0744

Volta Wasteway Refuge Level 2 Diversification Phase I Project-ARRA Project No. 28.129-  
Central Valley Project, California

Sansone Company Inc., San Luis Obispo, CA

Work Performed:	February	0%
	Time Elapsed	100%
	Work Completed	99.5%
Contractor Earnings:	February	\$0
	Previous	\$1,704,452.80
	Total to Date	\$1,704,452.80

Area Office Project Management

Project Manager: Linda Colella, MP-410

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

All submittals are complete, contractor is submitting final Request for Equitable Adjustment (REA).

The substantially complete date was August 12, 2011.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: John Nelson, MPCO-328

Number of Contract Employees: 0

Work performed:

No onsite work was performed as all site work has been completed.

# Contracts in Warranty Status



R11PC20051 No Spec. No. Coleman Intakes - Leaky Concrete Pipe Joint Repair

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed. (1-year warranty extends to May 4, 2012).

Contract Administrator: Amber Pierce, MPCO-205

R10PC20R13 20-C0739 Replace Water Treatment System, New Melones Powerplant, ARRA Project No. 88.000

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed. (1-year warranty extended to February 12, 2012).

Contract Administrator: Amber Pierce, MPCO-205

R09PC20017 20-C0708 Marble Bluff Fish Handling Building Reroofing

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed (5-year roof guarantee extends to March 5, 2015).

Contract Administrator: John Zimmerman MPCO-230

R09PC20147 20-C0758 New Melones Lake Restroom Building Reroofing

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed (3-year roof guarantee extends to May 20, 2014).

Contract Administrator: John Zimmerman MPCO-230

R10PC20176 20-C0713 New Melones Resource Area Building Re-roofing

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed (3-year roof guarantee extends to March 25, 2013).

Contract Administrator: John Zimmerman MPCO-230

R10PC20032 20-C0737 New Melones Powerplant Emergency Engine Generator

There was no Office Engineering administrative activity this period.

This contract has not been contractually closed (1-year warranty extends to May 26, 2012).

Contract Administrator: John Zimmerman MPCO-230



# MPCO Lab

02/29/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 1

Concrete Class: Canal Slab  
Report of Mixes Used From 02/01/2012 to 02/29/2012Mix Design Number: F740QFPX7  
Specification Number: 20-C0740  
Project: Central Valley  
Feature: Red Bluff Bridge and Siphon

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size						Yield Quantities per Cubic Yard										Fresh Concrete Tests						Compressive Strength Of Individual Specimens (psi)						
		Sand	CA1	CA2	CA3	CA4	Pounds					Oz					Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year	
							Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5						Grav Meth	Press Meter							
02/07/2012																														
07:16	15.50	52.8	100.0	0.0	0.0	0.0	262	610	107	1533	1359	0	2.6	21.7	28.9	0.0	46	4.00	143.4	0.37	3.7	3.0		3530	#####					
																							3350	#####						
02/08/2012																														
13:05	26.75	52.7	100.0	0.0	0.0	0.0	251	623	108	1554	1383	0	2.3	21.9	28.9	0.0	65	2.75	145.2	0.34	2.9	2.8		4160	#####					
																							4120	#####						
Design		44.0	100.0	0.0	0.0	0.0	237	592	105	1254	1624	0	4.5	27.8	20.9	0.0			3.00	141.2	0.34	5.0	5.0		4000					
AVG.		52.8	100.0	0.0	0.0	0.0	257	617	108	1544	1371	0	2.5	21.8	28.9	0.0	0.0	55	3.38	144.3	0.35	3.3	2.9	3790						
S.D.		0.1	0.0	0.0	0.0	0.0	8	9	1	15	17	0	0.2	0.1	0.0	0.0	0.0	13	0.88	1.3	0.02	0.5	0.1	411						
C.O.V		0.1	0.0	0.0	0.0	0.0	3.0	1.5	0.7	1.0	1.2	0.0	7.3	0.7	0.1	0.0	0.0	24.1	26.1	0.9	4.4	16.8	4.9	10.8						

Bureau.....: Required average strength = 4950 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi &amp; C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 5200 psi at 28 days (n=13)

CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

02/29/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 2

Concrete Class: Lean Canal Concrete  
Report of Mixes Used From 02/01/2012 to 02/29/2012Mix Design Number: F425AFP01-2  
Specification Number: 20-C0752  
Project: Central Valley  
Feature: Red Bluff Pumping Plant and Fish Screen

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size						Yield Quantities per Cubic Yard										Fresh Concrete Tests						Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Pounds										Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
									Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Grav Meth	Press Meter													
02/10/2012																															
08:03	166.50	50.2	100.0	0.0	0.0	0.0	258	333	58	1526	1502	0	2.4	19.5	0.0	0.0	54	6.25	136.2	0.66	7.4	6.1			980	#####					
09:50	166.50	49.4	100.0	0.0	0.0	0.0	237	339	59	1552	1576	0	2.4	19.9	0.0	0.0	54	3.25	139.4	0.60	6.2	5.5			930	#####					
																								1240	#####						
																								1340	#####						
02/11/2012																															
08:12	249.75	49.5	100.0	0.0	0.0	0.0	232	350	61	1584	1607	0	2.0	20.3	0.0	0.0	57	3.50	142.0	0.56	4.7	3.0				#####					
																									#####						
10:26	249.75	48.1	100.0	0.0	0.0	0.0	221	340	60	1573	1685	0	2.1	20.4	0.0	0.0	62	4.50	143.7	0.55	4.0	3.0				#####					
																									#####						
02/22/2012																															
07:37	129.50	49.4	100.0	0.0	0.0	0.0	242	341	59	1568	1596	0	2.5	20.5	0.0	0.0	60	2.25	141.0	0.61	5.0	3.8			#####	#####					
																									#####	#####					
Design		45.0	100.0	0.0	0.0	0.0	257	340	60	1430	1707	0	2.4	20.0	0.0	0.0		3.00	140.5	0.64	4.0	4.0				1000					
AVG.		49.3	100.0	0.0	0.0	0.0	238	341	59	1561	1593	0	2.3	20.1	0.0	0.0	0.0	57	3.95	140.5	0.60	5.4	4.3			1122					
S.D.		0.8	0.0	0.0	0.0	0.0	14	6	1	23	66	0	0.2	0.4	0.0	0.0	0.0	4	1.51	2.8	0.04	1.3	1.4			199					
C.O.V		1.5	0.0	0.0	0.0	0.0	5.7	1.8	1.9	1.4	4.1	0.0	10.3	2.0	0.0	0.0	0.0	6.3	38.3	2.0	7.0	24.2	33.7			17.7					

Bureau.....: Required average strength = 1238 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi &amp; C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 2000 psi at 28 days (n=0)

CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

02/29/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 3

Concrete Class: Fish Screen Slab  
Report of Mixes Used From 02/01/2012 to 02/29/2012Mix Design Number: F740QFPX7-2  
Specification Number: 20-C0752  
Project: Central Valley  
Feature: Red Bluff Pumping Plant and Fish Screen

Date	Time	y^3 of Conc	Percent Of				Yield Quantities per Cubic Yard										T E Cem M Eff	P	Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)						
			Sand	Coarse Aggregate in each size			Water	Cem	Pounds					Oz	Slump (ins)	UW (pcf)			W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year			
				CA1	CA2	CA3			CA4	Poz	Sand	C.A.	AD#3							AEA	WRA							AD#4	AD#5	Grav Meth
02/02/2012																														
08:07	12.00	52.9	100.0	0.0	0.0	0.0	238	590	104	1486	1313	0	2.5	20.9	27.1	0.0	52	3.00	138.2	0.34	7.6	2.7			3630	#####				
																									3780	#####				
02/24/2012																														
10:09	159.50	52.9	100.0	0.0	0.0	0.0	248	611	131	1535	1359	0	3.6	22.0	28.7	0.0	67	3.25	143.8	0.33	3.6	2.8			#####	#####				
																									#####	#####				
02/28/2012																														
07:56	157.25	51.6	100.0	0.0	0.0	0.0	256	565	99	1488	1386	0	3.4	20.3	26.6	0.0	54	3.25	140.5	0.39	5.5	3.6			#####	#####				
																									#####	#####				
Design																														
		44.0	100.0	0.0	0.0	0.0	237	592	105	1254	1624	0	4.5	27.8	20.9	0.0		3.00	141.2	0.34	5.0	5.0					4000			
AVG.																														
		52.4	100.0	0.0	0.0	0.0	247	589	111	1503	1353	0	3.2	21.1	27.5	0.0	0.0 58	3.17	140.8	0.35	5.6	3.0			3705					
S.D.																														
		0.7	0.0	0.0	0.0	0.0	9	23	17	28	37	0	0.6	0.8	1.1	0.0	0.0 8	0.15	2.8	0.03	2.0	0.5			106					
C.O.V																														
		1.4	0.0	0.0	0.0	0.0	3.6	3.9	15.5	1.8	2.7	0.0	19.2	4.0	3.9	0.0	0.0 14.1	4.6	2.0	7.8	36.5	16.3			2.9					

Bureau.....: Required average strength = 4560 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi &amp; C.O.V. (n=221) = 9.6

ACI.....: Required average strength = 4742 psi at 28 days (n=221)

CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

02/29/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 4

Concrete Class: 8.5 sack - 5000 PSI - Pea Gravel  
Report of Mixes Used From 02/01/2012 to 02/29/2012Mix Design Number: F850BFP12  
Specification Number: 20-C0752  
Project: Central Valley  
Feature: Red Bluff Pumping Plant and Fish Screen

Date	y <sup>3</sup> of Time Conc	Percent Of						Yield Quantities per Cubic Yard							T E Cem M Eff P	Fresh Concrete Tests						Compressive Strength Of Individual Specimens (psi)					
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
02/13/2012																											
08:05	13.50	46.9	100.0	0.0	0.0	0.0	304	699	126	1299	1461	0	0.0	0.0	99.2	0.0	54	8.75	144.0	0.37	1.9	1.0	4830	#####			
																						4480	#####				
Design		44.0	100.0	0.0	0.0	0.0	283	679	120	1182	1478	0	0.0	0.0	95.9	0.0		7.00	138.6	0.35	3.0	3.0		5000			
AVG.		46.9	100.0	0.0	0.0	0.0	304	699	126	1299	1461	0	0.0	0.0	99.2	0.0	0.0 54	8.75	144.0	0.37	1.9	1.0	4655				

Bureau.....: Required average strength = 6188 psi at 28 days. Based on 90% exceeding the design strength of 5000 psi &amp; C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 6461 psi at 28 days (n=28)

CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

03/01/2012  
Page 1

U.S. Bureau of Reclamation

Concrete Construction Data

Concrete Class: Structural Cast-In-Place  
Report of Mixes Used From 01/01/2012 to 03/01/2012

Mix Design Number: F740QFPX9  
Specification Number: 20-C0649A  
Project: Central Valley  
Feature: Fixed Wheel Gate Rehabilitation

Date Time	y <sup>3</sup> of Conc	Percent Of				Yield Quantities per Cubic Yard										T E Cem M Eff P	Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Coarse Aggregate in each size				Pounds					Oz						Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4					AD#5	Grav							Press																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Bureau.....: Required average strength = 4950 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 5200 psi at 28 days (n=2)

CURE METHOD...: Water Tank with an Average Cure Temperature of 60 - 70 (F)

##### = Specimen not broken as of report date.

03/01/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 2

Concrete Class: Lean Concrete Fill  
Report of Mixes Used From 01/01/2012 to 03/01/2012Mix Design Number: 1534982  
Specification Number: 20-C0754  
Project: Central Valley  
Feature: MIAD Key-Block Lean Concrete

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size						Yield Quantities per Cubic Yard										T E Cem M Slump (ins)	Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Pounds					Oz					W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year				
									Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Grav Meth			Press Meter											
02/16/2012																															
06:17	460.00	70.3	100.0	0.0	0.0	0.0	484	462	104	1942	823	0	0.0	0.0	0.0	0.0	58	8.00	141.3	0.86	-0.7	1.0	1300	#####	1240	#####	1450	#####	1420	#####	
08:04	460.00	70.1	100.0	0.0	0.0	0.0	473	460	111	1944	834	0	0.0	0.0	0.0	0.0	58	7.75	141.5	0.83	-0.5	0.6	1440	#####	1420	#####	1440	#####	1480	#####	
10:50	460.00	70.3	100.0	0.0	0.0	0.0	470	465	105	1953	830	0	0.0	0.0	0.0	0.0	64	6.75	141.6	0.82	-0.4	0.5	1380	#####	1320	#####	1360	#####	1320	#####	
13:06	460.00	70.3	100.0	0.0	0.0	0.0	474	460	104	1931	820	0	0.0	0.0	0.0	0.0	65	6.75	140.4	0.84	0.2	0.6	1360	#####	1360	#####	1360	#####	1360	#####	
14:45	460.00	70.4	100.0	0.0	0.0	0.0	474	460	103	1937	817	0	0.0	0.0	0.0	0.0	65	6.25	140.4	0.84	0.1	0.6	1310	#####	1310	#####	1310	#####	1310	#####	
02/23/2012																															
07:27	497.50	68.9	100.0	0.0	0.0	0.0	471	452	103	1913	867	0	0.0	0.0	0.0	0.0	61	6.50	141.0	0.85	-0.1	0.6	1370	#####	1390	#####	1390	#####	1390	#####	
09:24	497.50	68.9	100.0	0.0	0.0	0.0	491	456	104	1917	867	0	0.0	0.0	0.0	0.0	67	6.50	142.0	0.88	-1.5	0.6	1380	#####	1360	#####	1380	#####	1360	#####	
11:13	497.50	69.0	100.0	0.0	0.0	0.0	488	452	103	1907	859	0	0.0	0.0	0.0	0.0	68	6.75	141.1	0.88	-0.8	0.6	1380	#####	1380	#####	1380	#####	1310	#####	
13:03	497.50	69.0	100.0	0.0	0.0	0.0	488	457	102	1902	859	0	0.0	0.0	0.0	0.0	70	6.00	141.0	0.87	-0.8	0.6	1420	#####	1420	#####	1420	#####	1420	#####	
Design		45.0	100.0	0.0	0.0	0.0	508	446	101	1198	1470	0	0.0	0.0	0.0	0.0		8.00	137.9	0.93	0.0	0.0	1000								
AVG.		69.7	100.0	0.0	0.0	0.0	479	458	104	1927	842	0	0.0	0.0	0.0	0.0	0.0	64	6.81	141.1	0.85	-0.5	0.6	1378							
S.D.		0.7	0.0	0.0	0.0	0.0	8	4	3	18	21	0	0.0	0.0	0.0	0.0	0.0	4	0.66	0.5	0.02	0.5	0.1	66							
C.O.V		1.0	0.0	0.0	0.0	0.0	1.7	1.0	2.5	0.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0	6.7	9.7	0.4	2.4	***	22.3	4.8							

Bureau.....: Required average strength = 1238 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi &amp; C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 2000 psi at 28 days (n=0)

CURE METHOD...: Water Tank with an Average Cure Temperature of 50 - 83 (F)

##### = Specimen not broken as of report date.

03/01/2012

U.S. Bureau of Reclamation  
Concrete Construction Data  
Concrete Class: Secant Pile Mix  
Report of Mixes Used From 01/01/2012 to 03/01/2012

Page 3

Mix Design Number: 1514243  
Specification Number: C0-C0754  
Project: MIAD KEY-BLOCK  
Feature: SECANT PILES

Date Time	y <sup>3</sup> of Conc	Percent Of				Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)								
		Coarse Aggregate in each size				Pounds										T E M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year		
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4					AD#5	Grav Meth							Press Meter	
01/04/2012 11:21	151.00	42.8	100.0	0.0	0.0	0.0	285	404	171	1318	1792	0	0.0	18.0	21.9	28.8	10.1	58	7.00	147.0	0.50	2.3	1.3			2440	4150		
																										2320	4040		
01/05/2012 10:02	152.50	43.1	100.0	0.0	0.0	0.0	289	408	174	1333	1790	0	0.0	18.3	22.5	29.4	9.9	58	8.00	147.9	0.50	1.6	1.1			2320	4000		
																										2420	4040		
01/06/2012 09:36	166.00	43.3	100.0	0.0	0.0	0.0	290	411	175	1345	1797	0	0.0	18.3	22.3	29.1	9.8	59	7.25	148.8	0.49	1.0	1.6			2410	4100		
																										2310	3980		
01/09/2012 10:54	129.00	43.7	100.0	0.0	0.0	0.0	310	408	175	1345	1769	0	0.0	18.2	22.1	29.3	9.9	59	8.25	148.4	0.53	0.5	0.9			2330	4040		
																										2290	4040		
01/10/2012 09:16	138.00	43.7	100.0	0.0	0.0	0.0	312	411	176	1357	1778	0	0.0	18.4	23.0	29.2	10.1	56	7.25	149.4	0.53	-0.2	1.3			2450	4160		
																										2540			
01/11/2012 09:22	167.00	43.7	100.0	0.0	0.0	0.0	310	408	173	1351	1776	0	0.0	18.3	22.5	29.4	10.9	55	8.50	148.8	0.53	0.3	1.1			2650	4510		
																										2720	4360		
01/12/2012 11:07	162.50	43.6	100.0	0.0	0.0	0.0	305	400	167	1326	1747	0	0.0	18.0	22.4	29.2	11.2	62	8.00	146.1	0.54	2.0	1.9			2620	4450		
																										2760	4510		
01/16/2012 09:33	210.50	44.4	100.0	0.0	0.0	0.0	306	402	173	1372	1754	0	0.0	18.0	21.5	28.9	10.7	53	8.75	148.4	0.53	0.7	1.0			2540	4300		
																										2540	4280		
01/17/2012 12:25	157.50	44.7	100.0	0.0	0.0	0.0	301	395	175	1351	1702	0	0.0	17.7	22.1	28.2	55.5	58	8.25	145.3	0.53	2.6	2.3			2430	39903		
																										2450	3950		
01/18/2012 09:42	190.00	44.6	100.0	0.0	0.0	0.0	311	409	174	1389	1755	0	0.0	18.3	22.6	29.1	11.5	50	7.00	149.6	0.53	-0.2	1.7			2740	4700		
																										2800	4710		
01/19/2012 07:53	175.00	44.8	100.0	0.0	0.0	0.0	315	414	177	1405	1762	0	0.0	18.5	22.5	29.8	9.9	59	7.00	150.8	0.53	-1.2	2.7			2500	4110		
																										2470	4110		
01/20/2012 07:53	176.50	44.7	100.0	0.0	0.0	0.0	310	405	172	1380	1741	0	0.0	18.2	22.0	29.2	10.5	57	9.00	148.4	0.54	0.5	2.1			2500	4280		
																										2630	4190		
01/23/2012 09:15	228.50	45.4	100.0	0.0	0.0	0.0	292	399	173	1376	1688	0	0.0	17.9	21.7	28.7	10.5	55	8.75	145.5	0.51	2.9	2.9			2580	3920		
																										2520	4470		
01/24/2012 10:41	141.50	45.5	100.0	0.0	0.0	0.0	286	405	173	1399	1705	0	0.0	18.1	21.7	28.8	11.0	56	7.25	147.0	0.49	2.2	2.0			2700	4420		
																										2690	4450		
01/25/2012 07:15	201.50	45.5	100.0	0.0	0.0	0.0	290	410	174	1416	1727	0	0.0	18.4	22.3	29.5	9.4	57	8.00	148.8	0.50	1.0	1.9			2430	3860		
																										2300	3840		
01/27/2012 08:47	88.50	45.6	100.0	0.0	0.0	0.0	289	408	173	1407	1711	0	0.0	0.0	18.9	29.6	9.7	63	7.25	147.7	0.50	1.6	1.5			2470	3800		
																										2550	4080		
01/30/2012 07:26	223.50	*** No tests recorded for this placement ***																											
																										2160	3530		



03/01/2012

U.S. Bureau of Reclamation  
Concrete Construction Data  
Concrete Class: Secant Pile Mix  
Report of Mixes Used From 01/01/2012 to 03/01/2012

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Mix Design Number: 1514243  
Specification Number: C0-C0754  
Project: MIAD KEY-BLOCK  
Feature: SECANT PILES

Date Time	y <sup>3</sup> of Conc	Percent Of				Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Coarse Aggregate in each size				Pounds										Cem Eff	T E M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4						AD#5	Grav Meth							Press Meter																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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03/01/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

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Concrete Class: Secant Pile Mix  
Report of Mixes Used From 01/01/2012 to 03/01/2012Mix Design Number: 1514243  
Specification Number: C0-C0754  
Project: MIAD KEY-BLOCK  
Feature: SECANT PILES

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size				Yield Quantities per Cubic Yard										Fresh Concrete Tests						Compressive Strength Of Individual Specimens (psi)								
		Sand	CA1	CA2	CA3	CA4	Pounds					Oz					Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year	
							Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5						Grav Meth	Press Meter							
Design		42.0	100.0	0.0	0.0	0.0	309	395	169	1276	1750	0	0.0	18.0	22.0	24.0			8.00	144.4	0.55	3.0	3.0							3000
AVG.		45.0	100.0	0.0	0.0	0.0	298	406	174	1387	1725	0	0.0	17.9	22.0	28.6	12.8	59	7.77	147.7	0.51	1.3	1.7						2500	5108
S.D.		2.7	0.0	0.0	0.0	0.0	10	4	2	82	86	0	0.0	3.6	1.0	1.7	10.7	3	0.64	1.2	0.02	0.9	0.6					320	5886	
C.O.V		5.9	0.0	0.0	0.0	0.0	3.5	1.1	1.4	5.9	5.0	0.0	0.0	20.0	4.4	5.9	83.3	5.7	8.3	0.8	3.6	70.3	34.2					12.8	**.*	

Bureau.....: Required average strength = 27831 psi at 28 days. Based on 90% exceeding the design strength of 3000 psi &amp; C.O.V. (n=181) = 69.7

ACI.....: Required average strength = 8844 psi at 28 days (n=181)

CURE METHOD...: Water Tank with an Average Cure Temperature of 51 - 73 (F)

##### = Specimen not broken as of report date.

02/27/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 1

Concrete Class: Structural Concrete  
Report of Mixes Used From 01/01/2012 to 02/29/2012Mix Design Number: F670AFPX7  
Specification Number: 20-C0746  
Project: Battle Creek  
Feature: Hydropower Facility Modifications Stage 1

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size				Yield Quantities per Cubic Yard										Fresh Concrete Tests						Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Pounds					Oz					Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
							Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5						Grav Meth	Press Meter						
01/03/2012																													
08:54	32.00	47.4	100.0	0.0	0.0	0.0	253	555	99	1408	1536	0	1.8	25.8	19.7	0.0	9.0	54	3.00	142.6	0.39	3.6	3.4			3680	4950	3680	4990
01/06/2012																													
08:30	34.50	48.9	100.0	0.0	0.0	0.0	233	549	98	1464	1508	0	2.1	25.6	19.4	0.0	9.3	55	2.75	142.7	0.36	4.3	3.8			3660	4900	3660	5310
01/11/2012																													
08:00	34.25	60.6	100.0	0.0	0.0	0.0	254	531	92	1788	1144	0	2.8	24.6	18.7	0.0	8.6	55	3.50	141.1	0.41	4.6	4.5			3270	4550	3380	4600
02/09/2012																													
07:47	28.75	47.3	100.0	0.0	0.0	0.0	263	538	98	1386	1522	0	2.5	24.9	19.3	0.0		64	4.50	141.0	0.41	4.1	4.1			3170	#####	3180	#####
02/17/2012																													
07:25	29.75	46.8	100.0	0.0	0.0	0.0	267	540	92	1383	1547	0	3.4	25.1	19.0	0.0		52	4.75	141.8	0.42	3.5	3.8			3400	#####	3380	#####
02/23/2012																													
07:44	20.00	47.1	100.0	0.0	0.0	0.0	240	534	98	1380	1527	0	3.0	24.9	18.9	0.0		61	5.00	140.0	0.38	5.6	4.2			#####	#####	#####	#####
Design																													
		47.4	100.0	0.0	0.0	0.0	280	536	95	1357	1507	0	3.1	25.2	18.9	0.0			3.00	139.8	0.44	4.0	4.0			4000			
AVG.																													
		49.7	100.0	0.0	0.0	0.0	252	541	96	1468	1464	0	2.6	25.1	19.2	0.0	9.0	57	3.92	141.5	0.40	4.3	4.0			3446	4883		
S.D.																													
		5.4	0.0	0.0	0.0	0.0	13	9	3	160	157	0	0.6	0.4	0.4	0.0	0.3	5	0.96	1.0	0.02	0.8	0.4			208	279		
C.O.V																													
		10.9	0.0	0.0	0.0	0.0	5.2	1.7	3.4	10.9	10.7	0.0	23.8	1.8	2.0	0.0	3.8	8.2	24.4	0.7	6.0	17.6	9.7			6.0	5.7		

Bureau.....: Required average strength = -6179 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi &amp; C.O.V. (n=30) = \*\*.\*

ACI.....: Required average strength = 22320 psi at 28 days (n=30)

CURE METHOD...: Water Tank with an Average Cure Temperature of 60 - 80 (F)

##### = Specimen not broken as of report date.

02/27/2012

U.S. Bureau of Reclamation  
Concrete Construction Data

Page 2

Concrete Class: Structural Concrete  
Report of Mixes Used From 01/01/2012 to 02/29/2012

Mix Design Number: F670GFPW8  
 Specification Number: 20-C0746  
 Project: Battle Creek  
 Feature: Hydropower Facility Modifications Stage 1

Date Time	y <sup>3</sup> of Conc	Percent Of Coarse Aggregate in each size					Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)									
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Pounds					Oz					Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
									Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Grav Meth	Press Meter													
01/13/2012																															
07:49	57.50	47.0	100.0	0.0	0.0	0.0	274	529	94	1405	1546	0	1.8	50.0	25.4	0.0	8.8	56	3.50	142.5	0.44	3.0	3.9			3480	4740	3520	4600		
Design		44.4	100.0	0.0	0.0	0.0	285	536	95	1267	1585	0	2.1	50.4	50.4	0.0			6.00	139.6	0.45	4.0	4.0				4000				
AVG.		47.0	100.0	0.0	0.0	0.0	274	529	94	1405	1546	0	1.8	50.0	25.4	0.0	8.8	56	3.50	142.5	0.44	3.0	3.9			3500	4670				

Bureau.....: Required average strength = 4950 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi &amp; C.O.V. (Est.) = 15.0

ACI.....: Required average strength = 4419 psi at 28 days (n=21)

CURE METHOD...: Water Tank with an Average Cure Temperature of 60 - 80 (F)

02/27/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 1

From 02/01/2012 to 02/29/2012

Specification : 20-C0746  
 Mix Number : ALL Combined for This Specification  
 Project : Battle Creek  
 Feature : Hydropower Facility Modifications Stage 1

## Sand Gradations (ASTM)

Date	Percent Passing							% -200	FINE MOD	Moist %	Spec Grav	Absorp
	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100					
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
02/09/2012	100.0	99.6	84.8	61.1	34.7	12.9	3.4	2.10	3.03	4.50	2.58	3.10
02/17/2012	100.0	99.8	84.8	62.5	37.8	17.5	7.0	4.30	2.91	4.50	2.58	3.10
02/23/2012	100.0	100.0	84.5	61.7	36.2	14.6	4.4	2.70	2.99	4.50	2.58	3.10
Average	100.0	99.8	84.7	61.8	36.2	15.0	4.9	3.03	2.98	4.50	2.58	3.10
S.D.	0.0	0.2	0.2	0.7	1.5	2.3	1.8	1.14	0.06	0.00	0.00	0.00
C.O.V.	0.0	0.2	0.3	1.1	4.3	15.4	37.1	37.49	2.17	0.00	0.00	0.00

02/27/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 2

From 02/01/2012 to 02/29/2012

Specification : 20-C0746  
 Mix Number : ALL Combined for This Specification  
 Project : Battle Creek  
 Feature : Hydropower Facility Modifications Stage 1

Nominal Size : #4 - 1" (ASTM)

## Coarse Aggregate Gradations

Date	Percent Passing Screen Sizes in Inches or Sieve Size Shown					%	Moist	Spec	Absorp
	1 1/2"	1"	1/2"	#4	#8				
Spec Max %	100.0	100.0	60.0	10.0	5.0				
Spec Min %	100.0	95.0	25.0	0.0	0.0				
02/09/2012	100.0	99.4	35.3	3.3	2.5	0.80	1.00	2.54	3.00
02/17/2012	100.0	87.7	34.6	2.5	1.2	1.10	1.00	2.54	3.00
02/23/2012	100.0	99.2	36.5	2.7	1.8	0.90	1.00	2.54	3.00
Average	100.0	95.4	35.5	2.9	1.8	0.93	1.00	2.54	3.00
S.D.	0.0	6.7	1.0	0.4	0.7	0.15	0.00	0.00	0.00
C.O.V.	0.0	7.0	2.8	15.6	36.0	16.37	0.00	0.00	0.00

02/29/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 1

From 02/01/2012 to 02/29/2012

Specification : 20-C0752  
 Mix Number : ALL Combined for This Specification  
 Project : Central Valley  
 Feature : Red Bluff Pumping Plant and Fish Screen

## Sand Gradations (ASTM)

Date	Percent Passing							% -200	FINE MOD	Moist %	Spec Grav	Absorp
	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100					
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
02/10/2012	100.0	99.8	84.4	61.1	34.2	12.8	3.7	2.50	3.04	4.50	2.60	2.20
02/11/2012	100.0	99.3	81.4	54.6	38.9	22.7	7.8	2.60	2.95	4.50	2.60	2.20
02/24/2012	100.0	99.7	87.4	66.8	47.2	26.3	9.3	3.20	2.63	4.50	2.60	2.20
02/28/2012	99.6	99.2	83.2	59.4	33.9	14.3	5.5	3.60	3.05	4.20	2.60	2.20
Average	99.9	99.5	84.1	60.5	38.6	19.0	6.5	2.98	2.92	4.43	2.60	2.20
S.D.	0.2	0.3	2.5	5.1	6.2	6.5	2.5	0.52	0.20	0.15	0.00	0.00
C.O.V.	0.2	0.3	3.0	8.4	16.0	34.2	37.9	17.44	6.68	3.39	0.00	0.00

02/29/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 2

From 02/01/2012 to 02/29/2012

Specification : 20-C0752  
Mix Number : ALL Combined for This Specification  
Project : Central Valley  
Feature : Red Bluff Pumping Plant and Fish Screen

Nominal Size : #4 - 3/4" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing Screen Sizes in Inches or Sieve Size Shown					%	Moist	Spec	Absorp
	1"	3/4"	3/8"	#4	#8				
Spec Max %	100.0	100.0	55.0	10.0	5.0				
Spec Min %	100.0	90.0	20.0	0.0	0.0				
02/10/2012	100.0	85.3	33.8	6.8	4.0	1.20	1.00	2.58	2.40
02/11/2012	100.0	97.3	32.1	7.2	2.0	1.20	1.00	2.58	2.40
Average	100.0	91.3	32.9	7.0	3.0	1.20	1.00	2.58	2.40
S.D.	0.0	8.5	1.2	0.3	1.4	0.00	0.00	0.00	0.00
C.O.V.	0.0	9.3	3.5	4.5	46.5	0.00	0.00	0.00	0.00



02/29/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

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From 02/01/2012 to 02/29/2012

Specification : 20-C0752  
 Mix Number : ALL Combined for This Specification  
 Project : Central Valley  
 Feature : Red Bluff Pumping Plant and Fish Screen

Nominal Size : #4 - 1 1/2" (ASTM)

## Coarse Aggregate Gradations

Date	Percent Passing Screen Sizes in Inches or Sieve Size Shown					%	Moist	Spec	Absorp
	2"	1 1/2"	3/4"	3/8"	#4				
						-200	%	Grav	
Spec Max %	100.0	100.0	70.0	30.0	5.0				
Spec Min %	100.0	95.0	35.0	10.0	0.0				
02/24/2012	100.0	96.0	55.4	16.4	2.9	2.80	1.50	2.58	2.10
02/28/2012	100.0	99.7	56.5	20.0	2.9	0.90	2.10	2.58	2.10
Average	100.0	97.8	55.9	18.2	2.9	1.85	1.80	2.58	2.10
S.D.	0.0	2.6	0.8	2.5	0.1	1.34	0.42	0.00	0.00
C.O.V.	0.0	2.6	1.4	14.0	2.2	72.62	23.57	0.00	0.00

03/01/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

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From 01/01/2012 to 03/01/2012

Specification : 20-C0649A  
 Mix Number : ALL Combined for This Specification  
 Project : Central Valley  
 Feature : Fixed Wheel Gate Rehabilitation

## Sand Gradations (ASTM)

Date	Percent Passing							% -200	FINE MOD	Moist %	Spec Grav	Absorp
	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100					
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
02/02/2012	100.0	97.5	82.8	66.3	41.0	15.4	5.2	2.60	2.92	5.06	2.63	3.30
02/17/2012	100.0	97.5	82.8	66.3	41.0	15.4	5.2	2.60	2.92	5.13	2.63	3.30
Average	100.0	97.5	82.8	66.3	41.0	15.4	5.2	2.60	2.92	5.10	2.63	3.30
S.D.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.05	0.00	0.00
C.O.V.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.97	0.00	0.00

03/01/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 2

From 01/01/2012 to 03/01/2012

Specification : 20-C0649A  
Mix Number : ALL Combined for This Specification  
Project : Central Valley  
Feature : Fixed Wheel Gate Rehabilitation

Nominal Size : #4 - 1 1/2" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing Screen Sizes in Inches or Sieve Size Shown					%	Moist	Spec	Absorp
	2"	1 1/2"	3/4"	3/8"	#4				
						-200	%	Grav	
Spec Max %	100.0	100.0	70.0	30.0	5.0				
Spec Min %	100.0	95.0	35.0	10.0	0.0				
02/02/2012	100.0	98.6	59.9	12.6	1.9	0.30	3.00	2.69	1.00
02/17/2012	100.0	97.3	46.1	13.6	1.4	0.30	3.00	2.69	1.00
Average	100.0	98.0	53.0	13.1	1.6	0.30	3.00	2.69	1.00
S.D.	0.0	0.9	9.7	0.7	0.4	0.00	0.00	0.00	0.00
C.O.V.	0.0	0.9	18.3	5.6	24.1	0.00	0.00	0.00	0.00

From 02/16/2012 to 02/16/2012 \*

Specification : 20-C0754  
Mix Number : 1534982  
Project : MIAD Key-Block  
Feature : MIAD Key-Block Lean Concrete

Nominal Size : 1" (ASTM)

Combined Aggregate Gradations

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	Screen Sizes in Inches or Sieve Size Shown								
	1 1/2"	1"	1/2"	#4	#8				
Spec Max %		100.0		50.0		10			
Spec Min %		100.0		0.0		0			
02/16/2012		100.0		43.9		8.1	N/A	2.72	1.00
02/23/2012		100.0		43.5		7.7	3.15		
Average		99.7		43.5		7.9	0.60	2.72	1.00

From 01/01/2012 to 03/01/2012

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Specification : C0-C0754
Mix Number    : ALL Combined for This Specification
Project       : MIAD KEY-BLOCK
Feature       : SECANT PILES
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Sand Gradations (ASTM)

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U.S. Bureau of Reclamation  
Aggregate Gradation Summary

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From 01/01/2012 to 03/01/2012

Specification : C0-C0754  
Mix Number : ALL Combined for This Specification  
Project : MIAD KEY-BLOCK  
Feature : SECANT PILES

Nominal Size : #8 - 3/8" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	1/2"	3/8"	#4	#8	#16				
Spec Max %	100.0	100.0	30.0	10.0	5.0				
Spec Min %	100.0	85.0	10.0	0.0	0.0				
02/01/2012	100.0	100.0	99.6	29.6	1.1	0.40	1.50	2.70	1.40
02/03/2012	100.0	99.6	29.6	6.6	1.1	0.40	1.50	2.70	1.40
02/06/2012	100.0	98.7	92.2	3.7	0.7	0.40	1.50	2.70	1.40
02/07/2012	100.0	98.7	92.2	3.7	0.7	0.40	1.50	2.70	1.40
02/08/2012	100.0	98.7	92.2	3.7	0.7	0.40	1.50	2.70	1.40
02/09/2012	100.0	98.7	92.2	3.7	0.7	0.40	1.50	2.70	1.40
02/10/2012	100.0	98.7	92.2	3.7	0.7	0.40	1.50	2.70	1.40
02/13/2012	100.0	99.5	25.1	5.0	1.6	0.60	1.50	2.70	1.40
02/14/2012	100.0	99.5	25.1	5.0	1.6	0.60	0.75	2.70	1.40
02/15/2012	100.0	99.5	25.1	5.0	1.6	0.60	0.25	2.70	1.40
02/16/2012	100.0	99.5	25.1	5.0	1.6	0.60	0.25	2.70	1.40
02/21/2012	100.0	99.0	23.5	5.2	1.0	0.70	0.50	2.70	1.40
02/22/2012	0.0	0.0	0.0	0.0	0.0	0.70	0.50	2.70	1.40
02/24/2012	100.0	99.0	23.5	5.2	1.0	0.70	0.25	2.70	1.40
02/27/2012	100.0	99.5	28.8	7.7	1.9	0.80	0.50	2.70	1.40
02/28/2012	100.0	99.5	28.8	7.7	1.9	0.80	0.50	2.70	1.40
Average	97.1	95.5	35.5	5.5	1.1	0.70	0.80	2.70	1.40
S.D.	17.1	16.9	27.9	4.6	0.5	0.23	0.62	0.00	0.00
C.O.V.	17.7	17.7	78.7	82.5	44.1	33.03	77.85	0.00	0.00